

THE AINOS OF YEZO, JAPAN.

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CLOTHING.

The Ainu weave a very durable, coarse kind of cloth from the fibrous bark of the mountain elm, *Ulmus montana*, known as the *ohiyo*. Mr. Blackiston has pointed out that the species *Ulmus campestris* (Japanese *akadamo*) is also used. 286

The principal garment is a coat made of this material. It is patterned after one form of the Japanese coat. The shape is well shown in Plate XCVI, which represents the back of an embroidered coat made of the *ohiyo*, with strips of blue Japanese cotton cloth sewed on, and a running design of white braid, also produced in Japan. Such elaborate decoration is only applied to the best garments, those for common wear being quite plain. Japanese cotton goods are replacing the *ohiyo*. Already the native cloth is far less common than it has been, and while I was in Yezo I found it by no means abundant. The native looms will soon be out of use, for cotton goods, although less durable than the *ohiyo*, are warmer and softer. A narrow belt is worn around the waist. The women usually wear an under-garment of cotton, and occasionally an apron. 291 [177] [531] [439]

Leggins are worn by both sexes. These are very simply made, but are also often decorated with braid.

Sandals are worn in the summer (Pl. XCVII). These are said to be made of *kurumi no kawa*, walnut bark. The winter clothing is made of the skins of animals. For traveling in the snow there are shoes made of fish skin, and wide snow-shoes consisting of wooden frames with thongs of bear-skin, both of which are represented in this plate. 237 431

DWELLINGS.

The typical Aino house is a square or rectangular main structure, usually entered through a low gable-roofed passage-way. The framework is made of rough beams put together in the manner shown in Fig. 71, which is a drawing made from a photograph taken at Tokoro. The houses are thatched with reeds, usually the *Imperata arundinacea* Cyrill, held down by poles. Such a house is shown in Plate XCVIII; at Shari. There is a small opening just below the apex of the roof in front, through which the smoke escapes, and in cold weather this is the only outlet for the smoke. A sliding board-shutter in the middle affords ventilation through the roof, but this is closed in the winter. Houses of this kind are common in the north, where the winters are very cold. Farther south there is no opening through the roof, and the smoke passes out through a large triangular opening in front beneath the ridge-pole. To prevent wind and rain from beating in, a rectangular sort of chimney is built in front of the aperture. A similar house, also at Shari, is shown in Plate XCIX. A similar house at Bekkai or Bitskai, near Nemuro, is shown in Plates O and CI, which are two views of the same house. This house is thatched with straw. In Plate CII, back of 342

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floor for his accommodation. The fireplace, situated about in the middle of the room, is a rectangular depression about 5 feet by 3, filled with ashes, on which a smoky fire of green wood fitfully lights the gloomy interior. An iron pot, of Japanese manufacture, is suspended above the fire, in which food is almost constantly cooking. One or more *inao*, or god-sticks, usually stand upright in the ashes. There is usually a sort of latticed shelf suspended at some distance from the fire, on which fish are dried and smoked and strings of roots or other vegetable products hang in festoons preserved for winter food. A rectangular window at the back of the house admits all the light, except such as makes its way in through the chimney. The interior is therefore always gloomy. The beams and rafters are covered with a thick coating of shiny, black soot, which slowly accumulates upon them from the fire. Even in summer the atmosphere within these houses is often so full of smoke as to make one's eyes water. At night a large, flat mussel-shell, *Pecten Japonicus*, supported on a three-forked stick standing upright in the ashes, with a wick and fish oil, gives a faint light, and it is a weird sight indeed to see these dark-visaged, kindly savages grouped around the smouldering embers.

At this village, Bekkai, or as the name was also pronounced, Bitskai, about 12 miles from Nemuro, there are six houses of this character. The Aino population is given as 56 persons, living in 14 houses, but many of the other houses are built more like Japanese houses of a very inferior kind. From my observations I should say that there can not be so many Ainos in the village. Many of the Japanese have Aino wives. It is possible that there are one or two pure Aino families there, but I doubt it.

All the houses at Bekkai front toward the east, or easterly. The back window, therefore, faces the west. This is a fact worthy of particular notice, as it has been repeatedly asserted that all the Aino houses face the south. The houses at Piratori are mostly built east and west, without any door at the end. There is an entrance to the main room on the south side, and also an entrance to the hall or entrance passage on the south side. In the houses at Piratori there is a window on the east side. Numerous *inao* are hung on strings along the wall near one corner. One might readily suppose, from the writings of different authors, that there is some great significance in the fact that the houses in southern Yezo are built with their lengths east and west, and in the position of the east window. But I doubt if there is any more meaning in it than that a southern exposure is desirable in a cold northern land, and that the morning sun streams in through the east window. It is, indeed, possible that the latter is a place of worship; but I have not found that the huts are built in this direction throughout Yezo. They do not always have east windows. The house shown in Plate c, for example, has only a west window. The same may be said of the custom of placing the treasures in the northeast corner, mentioned by

out the pole leaving the hand. They have wonderful sight for fish under water. Their dexterity is induced by their using the spear almost from infancy. You can not go on the river any day during the salmon-trout season, provided the water is clear enough, without meeting brown upehins of all sizes prowling along under the steep banks in small canoes, or crouching on fallen tree-trunks, peering down through the interstices of masses of driftwood, with their spears ready for a dart at the fish. It is very pretty to see the men chasing the fish in their canoes, in which they stand upright and guide back and forth by using the blind end of their spear pole, at times making sudden rushes with cries of excitement to head off a fish; at others allowing the canoe to float down with the current, while they scan every inch of the water to detect a passing or stationary fish, with their spears poised at arm's length above the head ready for a strike, standing often on the gunwale of the canoe in order to get a downward view into the water. Their positions often in such cases are grand, while their features, worked up to the highest expression of expectancy, make a most animated picture of savage life. The Aino seems then really in his element, even more so than when, mounted bareback on a horse with only a rope halter, he is seen flying over plain, swinging a lasso around his head, driving a herd of half wild ponies toward a corral.

Mr. Blackiston describes a peculiar method of catching salmon, as follows:

On the Kaminokuni River I found the people preparing salmon weirs, which they build of stakes, brush, and mats, funnel-shaped, near the bank in such a way that most of the fish must pass through them. At night they squat alongside, having a gaff fitted to a pole, limber at its end. This they keep on the bottom or allow to drift along the bottom inside the weir, and when they feel a fish jumping over the stick, suddenly jerk it toward them and so gaff the salmon.

Another form of spear, double-headed, is also shown in Fig. 85. This two-headed spear is used for spearing seals, whales, turtles, and large fish. The two bone or iron barbs are merely pressed on the tips of the shaft, so as to be readily disconnected and left in the body of the animal. They are screwed to the ends of a tough strip of hide, to the middle of which is attached the long braided rope. The shaft is 11 feet in length and has a crotch at the end over which the line passes.

It is customary to poison the heads for seal fishing. The manner of using this spear is shown in Plate CIX, taken from a Japanese drawing. Here and there along rapid streams the Ainos build dams of stone and brush wood, which cause the water to flow through narrow apertures with unusual force. Just below these openings large flat platforms of boards are placed. The fish, swimming up the current, reach these dams, and in attempting to pass the obstructions some of them fail, and the force of the water throws them upon the platforms, where the fisherman easily secures them. The native fish-nets are made of the strong twisted linden bark. The fisheries of the coast are very important, but as conducted now they can scarcely be regarded as an Aino industry, since they are controlled by the Japanese who engage the Ainos in the work. Immense numbers of herring are converted into an excellent fertilizer, which is shipped to enrich the soil of the main island, and even tons of the beautiful and valuable salmon-trout, or spring-salmon, as it is called on the west coast of the United States, are each year utilized for the same purpose.

226 are each year utilized for the same purpose. The true salmon is also abundant on the coast. The fisheries of Yezo are too valuable to be conducted in the present careless and wasteful manner, and by proper government control might readily become a great source of wealth to Japan.

BOATS.

501 The ordinary river boats or canoes are dugouts. A common form is shown in Plate CX, from Tokoro on the north. A different form from Urap is represented in Plate CXI. The dimensions of a dugout at Tei-kaga, a small village far up the Kusuri River, were as follows:

Width of ends.....	inches..	11
Width of middle.....	do.....	28
Length, about.....	feet....	26

This boat was made of a single log, with considerable sheer at the ends.

Boats intended for rough water are often built with dugout logs for the bottom, and a free-board of considerable height made of planks bound on with bark lashings. Many of the large fishing boats are made in this manner and they are exceedingly strong. They measure perhaps 50 feet in length and 10 feet beam, with a great sheer, especially in front.

RELIGION.

771 The Aino religion is a very primitive nature-worship. The gods are invisible, formless conceptions, known as *kamui*, such as the house god, the god of fire, and the deities of mountain, forest, sea, and river. The sun and moon occupy a subordinate position among them. There are no priests nor temples, but within every house there is one corner sacred to the house-god. The god of fire, who is esteemed highest of all, is worshiped at the fire-place in the middle of the room. The others receive their due at the *nuska kamui*, or sacred hedge (Pl. CXII), which will be described in the account of the bear feast further on. It might naturally be supposed that this rude structure of branches and poles represents what was originally a hedge or fence built around the house for protection against the inroads of wild beasts, or possibly against enemies. The skulls of bears and foxes may have originally been placed upon the hedge as charms against evil. All this, however, is purely speculative; but there is a picture in Mr. Greey's book, "The Bear Worshipers of Yezo" (p. 105), representing a house of rather unusual form, which is shown to be protected on at least three sides by a rude sort of fence, such as may well be regarded as an early counterpart of the *nuska kamui*.

776 In addition to the sacred hedge, upon which the bear and fox skulls are displayed, there is a smaller hedge, before which the hulls of food-

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SACRED HEDGE, NUSHA KAMUI.

[Facing p. 472 (D)]

in number, and *not one* of them is built over a pit, thus showing that Mr. Batchelor was a little rash, when, relying on mistaken information, he drew a conclusion which is not in accordance with the facts. One thing that has misled most people as regards these Kurilsky Ainu is, that they were compelled to cut their hair and shave their beards. To the superficial observer this naturally gives them a different physiognomy from that of the Yezo Ainu, who let their hair grow long, and have flowing beards. Prof. Milne, who some years ago visited the Island of Shumshu,¹ relates that he saw there a small group of Kurilsky Ainu, who, all included, numbered twenty-two. Their dress, although made of skins, was European in form, and the upper-garment, shaped like a shirt, was made of bird-skins (puffins) with the feathers inside. The back was ornamented with the plumes of the yellow puffin, and the edge was trimmed with seal-fur. The men wore garments tied at the waist with a belt of sea-lion hide. Their feet and legs up to the knee were covered with moccasins, also made of sea-lion skin, and their food consisted of a few berries, the eggs and flesh of sea-birds, seals, and other meat. They were few and migratory, and carried with them all their property when migrating. Prof. Milne, in a paper contributed to the Asiatic Society of Japan, thinks that the chief point in connection with these people is, that they constructed houses by making shallow excavations in the ground, which were then roofed over with turf, and that these excavations had a striking resemblance to the pits now found further south. I believe, however, that Prof. Milne never saw them excavating these pits, and the fact that hardly two dozen people in the extreme north-east Kuriles having temporarily adopted shallow excavations which they roofed over, is barely sufficient proof that they were pit-dwellers, and, as will be seen later, I had ample evidence afterwards that they were not. It is probable that this wandering band, owing to the scarcity or difficulty of procuring timber in those regions—the smallness of their canoes not permitting them to transport the materials for above-ground structures from one island to another—it is probable, I say, that, having come upon pits already dug, they had roofed them over and lived in them, finding them suitable

¹ The correct name and pronunciation is *Shimushir*.

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771 when the poor beast has been sufficiently tortured, pricked
 825 with pointed sticks, shot at with blunted arrows, bruised with
 527 stones, maddened with rage and ill-usage, it is killed outright,
 and, "ancestor" as it may be, it makes the chief dish and *raison
 d'être* of a festival, where all the members of the tribe partake
 of its flesh. The owner of the hut in which the feast takes place
 then sticks the skull on to a forked pole, and sets it outside
 with the others at the east end of his hut. The skin is made
 • [237] into garments, or is spread on the ground to sleep on.

771 In addition to this rudimentary kind of Totemism—if I
 may call it so—the Ainu show a certain amount of fear and
 respect for anything which supports their life or can destroy it.
 This, however, is under the form of an "instinct" rather than
 a "religious feeling." Dumb animals of any kind are similarly
 affected by powers which they cannot explain; but as we
 would not think for a moment that when a dog is barking at
 the moon the dog is worshipping the orb of night, or when it
 basks in the sun that it is offering prayers and reverence to
 the orb of day, no more should we think that the Ainu, who
 are not much above dumb animals, worship all they respect
 and fear.

114 If other writers, most of whom have never visited the Ainu
 771 country, had not written on this subject, I would have limited
 myself to saying that the Ainu, properly speaking, have no
 religion, but as certain untenable theories and false ideas have
 been published, I feel bound to state what I know on the
 subject, that, so far as I can, I may correct these erroneous
 impressions. I regard myself as qualified to speak with some
 authority, as I am the *only* foreigner who has seen and studied
all the different tribes of Ainu in Yezo and the Kuriles; while
 other writers, the few who have actually been there, have
 based their statements on a few half-castes or Ainu in the
 more civilised part of southern Yezo, collecting from them
 ideas left behind by previous travellers, and offering them
 to the public as purely Ainu. That these hasty travellers and
 cursory writers have been deceived, or have deceived them-
 selves, is not astonishing; for it must be borne in mind that
 [141] the Ainu language is as poor in words as the Ainu brain is
 deficient in thoughts. Thus it is no easy matter to explain to
 an Ainu what is meant by "religion," by "divinities," and by

EXORCISM

in childbirth, and there are doubtless more. The following typical methods are practised. A second fire is made at the lower end of the hearth, and there Uari Kamui takes charge on behalf of Kamui Fuchi, for the purity of the latter must not be sullied, however deep her concern. The 'important' kamui are invoked and supplicated, especially Wakka-ush Kamui. Should there be any sign of difficulty Kinashut Kamui is summoned and then the mortar with its pestle is requisitioned. Having been washed and ritually purified at the seat of Ru-koro Kamui it is tilted to and fro so that it moves into the house, all the time being rhythmically beaten with the pestle. This rhythm is continued by the side of the patient and the pestle is waved above her head and over her body to drive away evil spirits. As the hours pass without bringing relief, the remedies become more desperate. One is to summon the spirit of a fresh-water crab and to urge it to save the mother's life by extracting the baby with its 'metal' claws, even if the baby has to die. The last resource is to give her the urine of her husband to drink or some diluted excrement from the privy. The elder who prepares it must taste it first. It makes her vomit and so ejects the evil spirit.

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As soon as the child comes out of the vagina the parturient woman spreads her legs. In case she is too weak to move herself a big ball of old clothes wrapped together is pushed between her knees.

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An experienced woman always stands beside the woman in labor whom she does not leave from the moment of the first birth pangs. Usually it is her own mother or aunt, but another loving relative may also take her place. Several times I saw that a relative came to the pregnant woman who was awaiting her confinement in the house of her husband, even though there was no lack of experienced women in that particular house. The latter were probably considered more distant or less loving.

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To speed up the birth and to lessen the pains, they massage the woman. The midwife moistens a piece of a marine plant which is called sea herb (laminaria), she warms it so that slime issues forth and with this slimy mass she rubs first the back vigorously and then more gently the chest and abdomen. On this occasion the following secret remedy is also often used: a dried bat is wrapped up in wood shavings and rubbed over the belly of the sick woman. If the parturition still proceeds with difficulty they pluck some hairs from the belly of a bitch, wrap them with willow chips and start massaging anew.

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The woman who acts as the midwife prays to the spirits of the deceased ancestors, who are generally considered the sole protectors of women, to help the sick woman. This prayer usually goes like this: "Wherever you may be, my little grandmothers, please help today a suffering woman!"

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Only a wise and courageous woman can be a midwife. She must be able to control her feelings and may not lose her head at the moaning and whimpering of the woman in childbirth, or tremble in sympathy for her. She must be able not only to alleviate the physical suffering of the sick woman, but also to pacify her mentally. If it is the woman's first childbirth, the midwife exhorts her to bear her pains patiently, just as other women have done who already have children who now help them with their work and who are therefore the object of envy to childless women.

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845 by their own assertion, sometimes lasts as long as three months
844 after the birth of a child. In 1903, during my stay among the
114 Ainu a 32-year old woman died a few days after her delivery
who had suffered violent pains and had lost consciousness during
the birth. The child came into the world alive but died a few
days later.

846 Twigs of the taxus baccata strongly heated and then laid
824 on the body of the patient are also considered an excellent
757 remedy to help the weakened woman regain her health as fast
as possible.

Treatment of the Newborn.

844 The umbilical cord is cut with a knife; the wound is
752 sprinkled with the powder obtained by rubbing river shells to-
824 gether, and the wound is then bandaged with a piece of cloth.
237 The navel always heals normally and a fracture of the navel is
totally unknown to the Ainu. They massage the head of the
856 child several times a day since the Ainu maintain that it might
844 otherwise be misformed. The head must be rounded back and
front and also on top. This form the Ainu try to achieve in
shaping the soft head of the child. At the same time they wrap
the child's head /768/ with soft, warm chips of wood, especial-
ly where it is soft.

844 The newborn baby is washed with warm, clear water with-
out any admixture on the very first day of its life. A boy gets
a colder bath than a girl. They pour the water in small quanti-
[A15] ties from a vessel made of birch bark onto the body of the child
which they hold with the left hand over the floor while they
rub it with the right hand. It is forbidden to use water for the
bath that one has previously had in one's mouth, as is the
custom among the Gilyak. The Ainu believe, that the child
[753] will develop a disease of the eyes if he is washed in such water.

844 As soon as the child is wrapped in diapers it is given
853 nourishment. During the first day the newborn is usually suckled
by another woman who still has enough nourishment. But when
no suitable women is in the vicinity the mother herself will
give her breast to the child right away. When the mother has

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173 by the meat as an entrance into the trap, the second was used as com-
223 munication with the adjacent tent, where a man lay in hiding. For
this man a second hut was dug in a row with the finished one and care-
fully covered with clay and grass. As is well known, eaglehunting
• [27] was formerly practiced on Sakhalin with predilection, since the tail-
feathers of these birds of prey were very fashionable as ornaments for
arrows. In consequence, there were all kinds of tales about eagle-
hunting and especially about the digging of the earth caves that were
used for lying in wait for the prey.

342 The Ainu never built their clay huts in the old hollows of the
[829] Tonchi though they did not shun their neighborhood. They considered
the Tonchi an alien people whose relics they did not feel bound to
[76] honor. Not so the relics of their own tribe. It happened quite often
[76] that an Ainu family did not bury the body of a member but left it ly-
[76] ing in the yurt which was soon abandoned. But even when the dead
was buried in the cemetery, the Ainu shunned the hut in which death
had overtaken him and even were afraid of staying in the neighbor-
hood of such a hut. This is the reason why in the neighborhood of
Tonchi caves traces of Ainu dwellings are often found.

173 My questions about the Tonchi were often parried evasively and
123 at that very reluctantly--or I was just told lies. Thus loquacious old
Ainu men, after I had loosened their tongues by some introductory
questions, told me that they had heard from their fathers about the
Tonchi but had forgotten it again; that the Tonchi had strongly re-
sembled the Ainu but had disappeared somewhere and nobody knew
what had become of them; that the Tonchi had used stone tools, had
lived in clay huts, but had been afraid of the Ainu and fled some-
where from them; that the Tonchi had liked to peep out of their clay
huts and watch the Ainu, but the moment the latter had come closer
had gone into their hiding-places where they could not be found at
all. Finally two or three Ainu declared briefly that there had never
been any Tonchi and that this region had always been inhabited by
the Ainu.

In April 1904, that is after a two-year stay among the Ainu,
when I was already on friendly terms with them, one of my closer

224 over hills and plains. The Ainu might have caught them, if they so wished,
 221 in any season. But summer was the time devoted to fishing and collecting;
 [825] besides, summer meat and skins were not much valued because they believed
 that summer meat was not greasy enough, summer furs did not keep warmth
 well and both were more easily infested by vermins (cf. INUKAI, 1943, pp.
 16-7); usually neither deer nor bear was chased in summer. As an item of
 [262] food, venison was of greater importance than bear flesh. Deer skins were
 [237] partly used for their own clothing and partly as articles of barter with Jap-
 [439] anese traders; but at least in Otopuke and upper Takapchi the stock left
 was dumped every summer, before or after being spoiled by vermins, with a
 simple ritual procedure by each household (Fig. 1). There were no ritual
 activities worth mentioning here in relation to deer hunting.

Autumn hunting.—Autumn hunting, *chuk iramande*, extending in reality
 to winter, was divided into two successive phases, the first characterized by
 field hunting and the second by hill hunting.

Field hunting.—This phase started in *Urepok chup* or around October
 when the fur of the animal began to change for the winter³³⁾ and the meat
 to get greasy (p. 54). The Ainu set spring bows and poisoned arrows to
 the deer fence on the fields at the foot of a hill or on the gentle slope of a
 lower hill and frequented the fence usually from their homes in the *kotan*
 while being engaged in salmon fishing in the river (Map 2; Fig. 8). On the
 way to and from the fence they also hunted deer with hand bows and arrows.
 Hunting with hand bows came into full swing with the arrival of the mating
 time (Note 31). Mating of deer took place most frequently on and around
 marshy tracts, where, usually not far from the Ainu settlements, the animal
 was decoyed by the deer whistle, *ireklep*, to be shot with hand bows and
 poisoned arrows. Field hunting continued until the base snow came to cover
 the food plants for the deer, which then retreated from the fields to their winter
 quarter³³⁾. Of the two autumn phases, the first one of field hunting was the
 more important, for in this period more or less sufficient quantity of venison
 could be secured to last the winter.

Hill hunting.—When the base snow came and all the deer tracks had dis-
 appeared from the field, the animals all gathered at their winter quarters,
 where they stayed till the spring (p. 53). Deer in Hokkaido pass the winter
 in sunny areas with less snow and with sufficient food plants such as bamboo-
 grass (Note 32). So far as the areas surveyed by the present writer are con-
 cerned, the winter quarters lay as a rule on hills which bordered the valley
 of the river along which Ainu settlements were distributed, that is, on slopes
 stretching under mountain ridges and wooded with evergreens, chiefly firs;
 of these the distinctive ones, which were named so-and-so *rikoruya* or *yuk rya*
ushi by the Ainu, were found on hills well wooded usually with firs, chiefly
hup, *Abies sachalinensis*.³³⁾

224 bear²². It grows to a large size and is of ferocious nature. The Ainu hunted
 [136] for it and killed it in a positive way with spring bows and arrows tipped
 [278] with poison prepared from the wolf's bane, Aconitum, and even with hand
 bows. The Ainu were most probably the only known people to use bows and
 arrows as chief implements for hunting the brown bear (WATANABE, 1953).
 Moreover, it seems that no people in the neighbouring areas ever hunted the
 [231] bear with such degree of active, organized effort as the Ainu. The Ainu
 habits of capturing and rearing young cubs and of their ritual killing were
 quite remarkable (p. 75), as was their well developed method of bear hunting.
 Furs of the animal were the most important item of barter with the Jap-
 [237] anese. Seen from the food economy of the Ainu the bear was not so import-
 [439] ant as deer or salmon. Throughout the areas investigated by the present
 [433] writer, rather few Ainu hunters could bring down or capture as many as eight
 bears, including cubs, in a year.

The bear has a hibernating habit. In early spring in Hokkaido the bear
 gradually came out of its den and, tracing chiefly the ridge where the snow
 melts earlier, came down to the lower hills and the level plain where food
 [137] could be found early. In autumn the bear went about in search of nuts and
 berries growing in plenty by the mountain streams. It grows very fat during
 the autumn. When snow came, the animal began to retreat upstream to the
 depth of the mountains, where it went again into hibernation in its den.
 Zoological data on those habits of the brown bear in Hokkaido have been
 given by HATTA (1911) and INUKAI (1933)²².

In Hokkaido, hibernation dens of bears were found in comparative abund-
 ance in those rugged mountain districts where rivers have their sources²⁷.
 The hibernation centres as known to the Ainu were distinct from the winter
 quarters of the deer even in the same river valley. These latter developed
 on the strip of lower hills mostly wooded with firs and lying on each side
 of a river valley (Notes 3, 4 and 33). The tracks for the seasonal and local
 migration of the animal, known by the Ainu as *noru* or *chikushiru*, were
 more concentrated, mingled and permanent on the ridges and in the small
 glens nearer to the hibernation centres. Farther away or downstream, they
 were more scattered and less stable. Moreover, the bear is non-gregarious;
 its tracks were narrower and less distinct than those of the deer which is
 gregarious.

[825] With full knowledge of their game, the Ainu selected bear hunting grounds
 [342] in those source areas of rivers where there were hibernation centres (Note
 36, f) and in each ground a hut was built for hunters to pass each season.
 These hunting grounds lay farther from the settlements and more interior
 than the deer hunting grounds (Fig. 8 and Map 2). Though much fewer,
 bears could be found without the source areas; if found, they might be caught

222 of the kind which was believed to be best for arrow poison were localized
 314 in their occurrence (p. 66). The four types of land cited above were invariably
 311 distributed along any river, so that almost all necessary collecting was usu-
 [494] ally done within a short radius of the *kotan*, or within a day's trip and back
 at the most. In the case of these particular species that were necessities
 and that could only be found a long way from their homes, expeditions were
 [462] sent out. The task of getting almost all edible plants, as well as varieties
 [957] for raw materials, was undertaken by women and children.

Cultivation of Plants.

241 Before the land-allotment to the Ainu by the Japanese Government (Notes
 [177] 9 and 10), the Ainu in the Otopuke valley and a half of the member house-
 [194] holds of the local group in Kuttaraushi who lived furthest upstream on the
 Tokapchi and at least a household in Pipaushi further downstream, had done
 no farming, but other Ainus in the Tokapchi valley as well as, for instance,
 [462] those in the Azuma valley, had done some small-scale farming¹. The old
 techniques were simpler and the farm work was usually performed by women.
 The main crops were a variety of *Panicum Crusgalli*, *piyapa* or *ayushi amam*,
 [220] and a variety of millet, *amam* or *toita amam* or *munjiro*. Preparation of
 field and sowing were done in July after storing of chief varieties of edible
 [412] leaves was finished. Suitable plots on the river bank near their settlement
 were cleared and levelled with small wooden picks, *shittap*, which were also
 used for digging up roots and plants. Some families on the Tokapchi used
 a kind of sickle besides the above-mentioned implement. After the plots
 were prepared, sowing followed without making any ridges. Weeding was
 [412] done only once or twice between the time of sowing and the harvest. The
 [237] crops were harvested by picking ears with an implement made of a molluscan
 [221] shell collected in the river, dried and stored. These jobs were done during
 the period between the last part of September and the middle or last part
 of October. The area cultivated by an average household in Azuma, Saru,
 Mukawa and Shikot is estimated by the present writer to have been between
 [311] ca. 1000 and 2000 square metres. When the soil was exhausted the plot was
 [134] abandoned and a new one prepared. In any valley there seems to have been
 no shortage of land for cultivation in those days. The cycle of shifting cul-
 tivation appears to have varied from area to area.

22 Food-getting Activities.

182 Every individual of every species of animals must get its food in order
 433 to sustain itself, and food-getting activities may claim to be of basic import-
 178 ance in its existence. Up to comparatively recent times, before the introduc-
 tion of agriculture in its rudest form, the Ainu had lived by hunting and
 1, [Errata: the word "of" should read "to". Cf. errata sheet,
 4 p. 164-A--Analyst]
 2, [Errata: the word "from" should read "form". Cf. errata
 A sheet, p. 164-A--Analyst]